

What is claimed is:

1. A square-wave modifying device for use in a recording apparatus comprising a pickup section provided in proximity to a recording medium, a flexible signal transmission path section connected to said pickup section and having a character of attenuating a high-frequency component of a signal to be transmitted therethrough and a main sheet section connected to said pickup section via said signal transmission path section, said square-wave modifying device comprising:

    a square-wave signal transmission section, provided in said main sheet section, for supplying a first square-wave signal to one end of said signal transmission path section; and

    a waveform modification section, provided in said pickup section, for receiving a second square-wave signal from another end of said signal transmission path section, said waveform modification section modifying a waveform of said second square-wave signal so that a level of the waveform is raised for a predetermined first time period at timing near a rise of said second square-wave signal and the level of the waveform is lowered for a predetermined second time period at timing near a fall of said second square-wave signal.

2. A square-wave modifying device for use in a recording apparatus comprising a pickup section provided in proximity to a recording medium, a flexible signal transmission path section connected to said pickup section and having a character of

attenuating a high-frequency component of a signal to be transmitted therethrough and a main sheet section connected to said pickup section via said signal transmission path section, said square-wave modifying device comprising:

a square-wave signal transmission section, provided in said main sheet section, for supplying a first square-wave signal to one end of said signal transmission path section; and

a waveform modification section, provided in said pickup section, for receiving a second square-wave signal from another end of said signal transmission path section of said second square-wave wave signal so that the waveform is raised at timing near a rise of said second square-wave signal and upper level of the waveform is raised for a predetermined first time period, and the waveform is lowered at timing near a fall of said second square-wave signal and an under level of the waveform is lowered for a predetermined second time period.

3. A square-wave modifying device for use in a recording apparatus comprising a pickup section provided in proximity to a recording medium, a flexible signal transmission path section connected to said pickup section and having a character of attenuating a high-frequency component of a signal to be transmitted therethrough and a main sheet section connected to said pickup section via said signal transmission path section, said square-wave modifying device comprising:

a square-wave signal transmission section, provided in said main sheet section, for supplying a first square-wave signal to one

end of said signal transmission path section; and

a waveform modification section, provided in said pickup section, for receiving a second square-wave signal from another end of said signal transmission path section of said second square-wave signal so that the waveform is raised at timing near a rise of said second square-wave signal and an upper level of the waveform is raised for a predetermined first time period, and the waveform is lowered at timing near a fall of a write-level pulse and an under level of the waveform is lowered for a predetermined second time period.

4. A light emission control device for use in a recording apparatus comprising a pickup section provided in proximity to a recording medium, a flexible signal transmission path section connected to said pickup section and having a character of attenuating a high-frequency component of a signal to be transmitted therethrough and a main sheet section connected to said pickup section via said signal transmission path section, said light emission control device comprising:

a light-emitting element provided in said pickup section;

a first light-receiving element provided in said pickup section;

a second light-receiving element provided in said pickup section;

a storage section, provided in said pickup section, for storing a target value of an amount of light reception by said second light-receiving element;

a control, provided in said pickup section, for, in a first operation mode, adjusting an amount of light emission by said light-emitting element so that the amount of light received by said second light-receiving element approaches the target value, and for, in a second operation mode, writing, into said storage section, another target value obtained on the basis of an amount of light received by said first light-receiving element; and

an operation mode setting section, provided in said main sheet section, for indicating an operation mode to be selected to said control via said signal transmission path section.

5. A light emission control device as claimed in claim 4 wherein said control receives, as a digital signal, the amount of light received by said second light-receiving element and supplies, as a digital signal, the amount of light emission by said light-emitting element, and

which further comprises:

an A/D converter for converting an output current value of said second light-receiving element into a digital signal and supplies the converted digital signal to said control; and

a D/A converter for, on the basis of the amount of light emission represented by the digital signal supplied by said control, outputting a signal proportional to a value of a current to be supplied to said light-emitting element.

6. A light emission control device for use in a recording apparatus comprising a pickup section provided in proximity to a

recording medium, a flexible signal transmission path section connected to said pickup section and having a character of attenuating a high-frequency component of a signal to be transmitted therethrough and a main sheet section connected to via said signal transmission path section to said pickup section, said light emission control device comprising:

    a light-emitting element provided in said pickup section;

    a first light-receiving element provided in said pickup section;

    a second light-receiving element provided in said pickup section;

    a received-light-amount transmission section, provided in said pickup section, for converting the amount of light received by said second light-receiving element into a first serial signal and transmitting said first serial signal to said main sheet section via said signal transmission path section;

    a control information generation section, provided in said main sheet section, for generating control information for controlling an amount of light emission by said light-emitting element on the basis of said amount of light received having been supplied via said signal transmission path section; and

    a control information transmission section, provided in said main sheet section, for converting the control information into a second serial signal and transmitting said second serial signal to said pickup section via said signal transmission path section.

7. A control device comprising:

a first feedback loop for detecting an amount of light emission by a light-emitting element and outputting a first operation amount for controlling a predetermined object of control in accordance with a difference between the detected amount of light emission and a target light emission value; and

a second feedback loop for outputting a second operation amount for controlling the predetermined object of control in accordance with a difference between the detected amount of light emission and the target light emission value, said second feedback loop having a lower response speed than said first feedback loop,

wherein the amount of light emission by said light-emitting element is controlled to approach said target light emission value.

8. A control device as claimed in claim 5 wherein said first feedback loop includes a differential amplifier that receives the amount of light emission and the target light emission value as analog signals and outputs said first operation amount as an analog value, and

wherein said second feedback loop includes:

an A/D converter for converting the amount of light emission into a digital value;

a memory for storing the target light emission value as a digital value;

a control that outputs said second operation amount as a digital value on the basis of the digital values representing the amount of light emission and the target light emission value; and

a D/A converter for converting said second operation

amount into an analog value.

9. A current supply device for use in a recording apparatus comprising a pickup section provided in proximity to a recording medium, a flexible signal transmission path section connected to said pickup section and having a character of attenuating a high-frequency component of a current to be transmitted therethrough and a main sheet section connected via said signal transmission path section to said pickup section, said current supply device supplying, via a switch section, a current from said main sheet section to a light-emitting element load within said pickup section, said current supply device comprising:

first and second signal lines provided in said signal transmission path section and each having a character of attenuating a high-frequency component of a current to be transmitted therethrough;

a current supply, provided in said main sheet section, for supplying a constant current to said pickup section via said first signal line;

a dummy load provided in said main sheet section;

said switch section, provided in said pickup section, for feeding the current, supplied via said first signal line, to said light-emitting element or to the dummy load via said second signal line while switching between said light-emitting element and said dummy load in a complementary fashion.